Fluorofenidone

Cat. No.: HY-121246

CAS No.: 848353-85-5

Molecular Formula: $C_{12}H_{10}FNO$

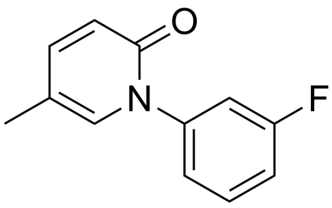
Molecular Weight: 203.21

Target: PI3K; Akt

Pathway: PI3K/Akt/mTOR

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 140 mg/mL (688.94 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.9210 mL	24.6051 mL	49.2102 mL
5 mM	0.9842 mL	4.9210 mL	9.8420 mL
10 mM	0.4921 mL	2.4605 mL	4.9210 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.33 mg/mL (11.47 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.33 mg/mL (11.47 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.33 mg/mL (11.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fluorofenidone (AKF-PD), an analogue of AMR69, shows equivalent antifibrotic activity, lower toxicity and longer half-life. Fluorofenidone (AKF-PD) attenuates the progression of renal interstitial fibrosis partly by suppressing NADPH oxidase and extracellular matrix (ECM) deposition via the PI3K/Akt signalling pathway[1][2].

REFERENCES

[1]. Qin J, et al. Fluorofenidone inhibits nicotinamide adeninedinucleotide phosphate oxidase via PI3K/Akt pathway in the pathogenesis of renal interstitial fibrosis. Nephrology (Carlton). 2013 Oct;18(10):690-9.

[2]. Lou Q, et al. Design, synthesis and antifibrotic activities of carbohydrate-modified 1-(substituted aryl)-5-trifluoromethyl-2(1H) pyridones. Molecules. 2012 Jan 17;17(1):884-96.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA